

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2005/003319

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B26F1/28

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B81B B26F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search {name of data base and, where practical, search terms used}
EPO- Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication where appropriate, of the relevant passages	Relevant to claim No
A	US 4 777 338 A (CROSS ET AL) 11 October 1988 (1988-10-11) column 3, line 38 - column 3, line 49; figures -----	1-67
A	US 6 348 675 B1 (TAKAGI KAZUNARI) 19 February 2002 (2002-02-19) the whole document -----	1-67 51
A	GB 1 089 369 A (MEYER LABORATORIES., INC) 1 November 1967 (1967-11-01) page 5, line 118 - page 5, line 124 page 10, line 38 - page 10, line 55 ----- -/--	1-67

☒ Further documents are listed in the continuation of box C

☒ Patent family members are listed in annex

° Special categories of cited documents

'A' document defining the general state of the art which is not considered to be of particular relevance
E' earlier document but published on or after the international filing date
L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
'O' document referring to an oral disclosure, use, exhibition or other means
P document published prior to the International filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
X' document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
Y' document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
& document member of the same patent family

Date of the actual completion of the international search

17 June 2005

Date of mailing of the international search report

13. 10. 2005

Name and mailing address of the ISA

European Patent Office, P B 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31 70) 340 2040 Tx 31 651 epo nl
Fax (+31 70) 340-3016

Authorized officer

Canel as, R. F.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2005/003319

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>"ELEKTROSTATISCHE MIKROPEFFORATION: ENERGIEENSPARUNG UND LEISTUNGSVERBESSERUNG" PAPIER + KUNSTSTOFF VERARBEITER, DEUTSCHE FACHVERLAG. FRANKFURT 5 DE 5 vol. 33, no. 3, March 1998 (1998-03), page 46, XP000741768 ISSN: 0048-2897</p> <p style="text-align: center;">-----</p>	1-67
A	<p>GB 1 095 269 A (INSTITUT DE RECHERCHES DE LA SIDERURGIE FRANCAISE) 20 December 1967 (1967-12-20) page 2, line 21 - line 73; figures</p> <p style="text-align: center;">-----</p>	1-67
A	<p>GB 1 165 458 A (POLYPLASTE, H.ROLF SPRANGER K.G.) 1 October 1969 (1969-10-01) the whole document</p> <p style="text-align: center;">-----</p>	1-67
A	<p>WO 99/31503 A (VOGEL, HORST; SCHMIDT, CHRISTIAN) 24 June 1999 (1999-06-24) cited in the application abstract</p> <p style="text-align: center;">-----</p>	1-67

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2005/003319

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons

1 ☐ Claims Nos
because they relate to subject matter not required to be searched by this Authority, namely

2 ☐ Claims Nos
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically

3 ☐ Claims Nos
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6 4(a)

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application as follows

see additional sheet

1 ☐ As all required additional search fees were timely paid by the applicant this International Search Report covers all
searchable claims

2 ☐ As all searchable claims could be searched without effort justifying an additional fee this Authority did not invite payment
of any additional fee

3 ☐ As only some of the required additional search fees were timely paid by the applicant this International Search Report
covers only those claims for which fees were paid. Specifically, claims Nos

4 ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is
restricted to the invention first mentioned in the claims it is covered by claims Nos

1-67

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest

☐ No protest accompanied the payment of additional search fees

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-67

Methods and devices for spark perforating an electrically insulating substrate, solving manufacturing problems.

2. claims: 68-73

Electrically insulating substrates having a structure or array of structures as produced by spark perforation and use of the same. These solve several application problems.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2005/003319

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4777338	A	11-10-1988	MONE
US 6348675	Bl	19-02-2002	AU 755497 B2 12-12-2002
		AU 8638698 A 01-03-1999	
		CA 2301668 A1 18-02-1999	
		CN 1207340 A 10-02-1999	
		DE 69804806 D1 16-05-2002	
		DE 69804806 T2 14-11-2002	
		EP 1001869 A1 24-05-2000	
		WO 9907530 A1 18-02-1999	
		JP 11048198 A 23-02-1999	
GB 1089369	A	01-11-1967	NONE
GB 1096269	A	20-12-1967	AT 266488 B 25-11-1968
		BE 666899 A 03-11-1965	
		DE 1300994 B 14-08-1969	
		FR 1418083 A 19-11-1965	
GB 1165458	A	01-10-1969	NONE
WO 9931503	A	24-06-1999	AT 205300 T 15-09-2001
		AU 746580 B2 02-05-2002	
		AU 8237998 A 05-07-1999	
		CA 2316966 A1 24-06-1999	
		DE 59801410 D1 11-10-2001	
		DK 1040349 T3 28-01-2002	
		EP 1040349 A1 04-10-2000	
		ES 2163284 T3 16-01-2002	
		HK 1028450 A1 15-03-2002	
		JP 3486171 B2 13-01-2004	
		JP 2002508516 T 19-03-2002	
		US 6758961 B1 06-07-2004	